

This listing of the claims replaces all prior versions in the application.

Listing of Claims:

1-25 (Canceled)

26. (Currently Amended) A method for performing chest compression during cardiopulmonary resuscitation (CPR), comprising;

sensing a parameter corresponding to a measure of intrinsic spontaneous cardiac activity of a heart in a subject undergoing CPR;

identifying a vulnerable portion of an intrinsic spontaneous cardiac cycle of the subject;
and

compressing the heart of the subject during a non-vulnerable portion of the spontaneous intrinsic cardiac cycle based on the identifying step ~~sensed parameter~~ thereby inhibiting reinduction of fibrillation and/or improving cardiac function.

27. (Original) A method according to Claim 26, wherein the sensing is carried out in substantially real-time.

28. (Currently Amended) A method according to Claim 26, wherein the compressing step is initiated at a time that does not overlap with a ~~the~~ T wave portion of ~~the~~ the spontaneous intrinsic cardiac cycle.

29. (Withdrawn) A method according to Claim 26, wherein the sensing step is carried out using a sensing electrode in communication with an external defibrillator.

30. (Withdrawn) A method according to Claim 26, wherein the sensing step is carried out using an internal sensing electrode in communication with an implantable defibrillator.

31. (Original) A method according to Claim 26, wherein compressing the heart comprises manually compressing the heart.

32. (Original) A method according to Claim 31, further comprising automatically generating an audible alert when compression is to be initiated to direct a person to initiate manual compression.

33. (Original) A method according to Claim 31, wherein the manual compression is a closed chest manual compression.

34. (Withdrawn) A method according to Claim 31, wherein the manual compression is an internal chest compression.

35. (Withdrawn) A method according to Claim 31, wherein the manual compression is an open chest compression.

36. (Withdrawn) A method according to Claim 26, wherein compressing the heart comprises mechanically compressing the heart using a compression device.

37. (Withdrawn) A method according to Claim 26, further comprising automatically controlling the device to apply the mechanical compression based on the timing of the intrinsic cardiac cycle as determined by the sensed parameter.

38. (Withdrawn) A method according to Claim 37, wherein the device is an external device residing on a closed chest of the subject.

39. (Withdrawn) A method according to Claim 37, wherein the device comprises an internal portion that automatically inflates and deflates to provide a minimally invasive direct cardiac massage.

40. (Withdrawn) A method according to Claim 38, wherein the external device comprises an inflatable vest configured to compress the chest.

41. (Currently Amended) A system for performing chest compression during cardiopulmonary resuscitation (CPR), comprising;

means for sensing a parameter corresponding to a measure of intrinsic spontaneous cardiac activity of a heart in a subject undergoing CPR; and

means for electronically identifying a favorable time to compress the chest to avoid a vulnerable portion of a spontaneous intrinsic cardiac cycle of the subject based on the sensed parameter; and

means for compressing the heart of the subject during a non-vulnerable portion of the intrinsic cardiac cycle based on the identified time ~~sensed parameter~~.

42. (Currently Amended) A system for assisting in chest compression in a subject having cardiomalfuction, comprising:

at least one cardiac activity sensor in communication with the heart of a subject configured to detect a cardiac activity parameter; and

a controller in communication with the at least one cardiac activity sensor ~~sensing electrode~~, wherein, in operation, the at least one cardiac activity sensor transmits data to the controller regarding a spontaneous intrinsic cardiac cycle of the subject and the controller identifies a favorable time to deliver a chest compression based on the transmitted sensor data to avoid a vulnerable portion of the spontaneous intrinsic cardiac cycle.

43. (Currently Amended) A system according to Claim 42, wherein the controller identifies a time that does not overlap with the T wave portion of ~~[[a]]~~ the spontaneous intrinsic cardiac cycle.

44. (Original) A system according to claim 42, further comprising an audible alert in communication with the controller, the controller configured to output an audible alert signal responsive to an identified favorable time to deliver a chest compression to the subject based on the transmitted sensor data.

45. (Original) A system according to Claim 44, further comprising a power supply in communication with the controller and a display configured to display a spontaneous intrinsic cycle and visually indicate a favorable time to deliver a chest compression based on the transmitted sensor data.

46. (Withdrawn) A system according to Claim 42, further comprising a mechanical device configured to apply chest compression at selected intervals, the controller configured to automatically actively control the timing of the compression applied by the mechanical device.

47. (Withdrawn) A system according to Claim 46, wherein the mechanical device is an external compression device.

48. (Withdrawn) A system according to Claim 46, wherein the mechanical device comprises an internal compression device.

49. (Currently Amended) A computer program product for timing the delivery of cardiac compression during CPR, the computer program product comprising:

a computer readable storage medium having computer readable program code embodied in said medium, said computer-readable program code comprising:

computer readable program code that identifies a vulnerable portion of an intrinsic spontaneous cardiac cycle of the subject; and

computer readable program code that determines a favorable time to deliver cardiac compression to a subject to avoid a vulnerable period of ~~[[a]]~~ the spontaneous intrinsic cardiac cycle.

50. (Withdrawn) A computer program product according to Claim 49, further comprising computer readable program code that identifies when electrical stimulation is applied to the subject, wherein the computer readable program code that determines the favorable time is based on the time that the electrical stimulation is applied.

51. (Currently Amended) A computer program product according to Claim 49, further comprising computer readable program code that receives data corresponding to the spontaneous cardiac activity of the subject in substantially real time, wherein the computer readable program code that determines the favorable time is based on the identified vulnerable portion of the cardiac cycle and the received data.

52. (Original) A computer program product according to Claim 49, further comprising computer readable program code that outputs an audible alert when a favorable cardiac compression time is determined.

53. (Withdrawn) A computer program product according to Claim 52, further comprising computer readable program code that automatically directs the activation of a mechanical compression device in response to the determined favorable time.

54. (New) A method according to Claim 26, further comprising audibly alerting when to start the compressing and when to stop the compressing based on the identifying step.

55. (New) A system according to Claim 41, wherein the means for electronically identifying a favorable time to compress the chest is configured to audibly generate when to start compression and when to stop compression to avoid a vulnerable portion of a spontaneous intrinsic cardiac cycle of the subject.

56. (New) A system according to Claim 42, further comprising an audio alert in communication with the controller wherein, in operation, the audio alert is configured to signal when to start compression and when to stop compression to avoid the vulnerable portion of the spontaneous intrinsic cardiac cycle.

57. (New) A computer program product according to Claim 52, further comprising computer readable program code that outputs an audible alert when to stop compression to avoid an unfavorable cardiac compression time.

58. (New) A method according to Claim 26, further comprising applying an electrical stimulation within about 1 second of the compressing step.

59. (New) A system according to Claim 42, further comprising an electrical stimulation source in communication with the controller, wherein the system is configured to apply electrical stimulation to the chest of the subject within about 1 second of the compression.